

Appl. No. 10/030,266

Amendment dated January 10, 2005

Reply to Non-Final Office Action of July 9, 2004

REMARKS

Claims 11-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO98/29466 to Bolte in view of U.S. Patent No. 3,846,163 to Kest.

Bolte discloses a polyurethane prepolymer formed by sequential reaction of a polyvalent alcohol with first and second diisocyanates, the second diisocyanate having a faster rate of reaction than remaining unreacted isocyanate groups on the first diisocyanate. The composition is then hardened by reaction with a typical hardener to form a cured composition. Indeed, whether used alone as a prepolymer or further reacted with a hardener, the polyurethane of Bolte is a reactive product that forms a reactive bond and not a pressure sensitive adhesion. There is no suggestion in Bolte of forming a pressure sensitive adhesive or using a hardener wherein the ratio of isocyanate groups to isocyanate-reactive functional groups is about 0.75:1 to about 1.15:1.

Kest discloses elastomer-based pressure sensitive adhesives formed by reaction of a diene telechelic polymer with a coreactant. The diene telechelic polymer has a hydrocarbon backbone which has been copolymerized with a vinyl having a functional group. The functional group may be hydroxyl. The coreactant may be a diisocyanate. The coreactant provides a ratio of coreactant functional groups to the functional groups in the diene telechelic polymer (and, when used, those of a reactive polyester or polyether and extending or crosslinking compound) of 0.75 to 1.20, preferably 0.95 to 1.12.

The Examiner points to Examples 2 and 5 of Kest as showing a ratio of NCO/OH between a prepolymer and a hardener of 1:1. Applicants respectfully traverse.

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The ratio of NCO:OH in the context of the reactions described both in Kest and applicants' disclosure can be defined in one of three ways:

- i) NCO:OH in forming the prepolymer component B;
- ii) NCO:OH in prepolymer B and A; and
- iii) NCO:OH on the basis of the all reactants.

The latter (i.e., NCO:OH in the all reactants) is what appears to be described in Kest at col. 11, line 30.

Applicants' claims, on the other hand, define the NCO:OH ratio according to ii) above. Thus the first reason Kest does not describe this element of applicants' claims is that the NCO:OH ratio described in the reference is not the one being claimed. Moreover, when the NCO:OH ratio is calculated for Examples 2 and 5 of Kest on the same basis as is used in applicants' claims, those examples do not fall within the range claimed:

Kest Ex. 2

A (OH component):

58.8 parts PolyBD 45 M (MW 1,250, 2.2 OH)	0.103 mol OH
0.5 parts Isonol C 100 (MW 209, 2 OH)	0.005 mol OH.

B (NCO component):

9.56 parts Hylene W (MW 262, 2 NCO)	0,073 mol NCO
31.2 parts PolyBD 45 M (MW 1,250, 2.2 OH)	0,052 mol OH.

All OH reacts in forming the prepolymer, leaving 0.021 mol unreacted NCO in prepolymer B.

ratio (B)	NCO:OH	1.40:1
ratio (B:A)	NCO:OH	0.19:1
ratio all	NCO:OH	0.46:1

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Kest Ex. 5

A (OH component):

38	parts PolyBD 45 HT	0.056 mol OH
0.5	parts Isonol C 100 (MW 209, 2 OH)	0.005 mol OH.

B (NCO component):

12.0	parts Isonate	0.09 mol NCO
32.0	parts PolyBD 45 HT	0.047 mol OH.

All OH reacts in forming the prepolymer, leaving 0.043 mol unreacted NCO in prepolymer B.

ratio (B)	NCO:OH	1.91:1
ratio (B:A)	NCO:OH	0.70:1
ratio all	NCO:OH	0.44:1

Accordingly, it is submitted that Kest does not disclose the ratio of isocyanate groups in the prepolymer to isocyanate-reactive functional groups of about 0.75:1 to about 1.15:1 claimed in claims 1 and 18 of the present application.

There is no suggestion in Bolte of using a hardener with reactive functional groups in the ratio claimed. Thus, the combination of Kest with Bolte does not suggest the composition presently claimed.

Accordingly, it is submitted that claim 11 and 18, and claims 12-17 and 19-20 dependent therefrom, distinguish over the references of record.

CONCLUSION

In view of the amendments and remarks above, Applicants ask for reconsideration and allowance of all pending claims. Applicants further ask for extension of the period for response to be extended three months to January 9, 2005. A Petition for Extension of Time under 37 CFR 1.136(a) is enclosed. Should any fees be due for entry and consideration of this Amendment

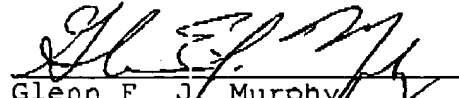
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that have not been accounted for, the Commissioner is authorized to charge them to Deposit Account No. 01-1250.

Respectfully submitted,


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